

Detailed Description of the Invention

Please enter the following amended claims:

1. The first part of the paper is devoted to the study of the properties of the function $\zeta(s)$ in the region $\sigma > 1$. It is shown that the function $\zeta(s)$ is meromorphic in this region and that it has a simple pole at $s = 1$. The residue of the pole is equal to 1. The function $\zeta(s)$ is also shown to be non-vanishing in the region $\sigma > 1$.